

WHAT IS CLAIMED IS

--1. An electrical device for transmitting electrical signals and for movable contact with an electrically conductive track, the device comprising,

an electrical contact composed of a multi-layer structure of a composite carbon fiber material having at least one layer of carbon fibers aligned in substantially the same direction and at least one layer of nonwoven carbon fiber mat, said layer of carbon fibers and said at least one layer of nonwoven carbon fiber mat being encapsulated in an elastomeric matrix, whereby free ends of said layer of carbon fiber elements are arranged to contact the electrically conductive track.

--2. The electrical device according to claim 1, further comprising a support strip having said electrical contact bonded thereto by a synthetic resin compound.

--3. The electrical device according to claim 2, wherein said support strip is electrically conductive.

--4. The electrical device according to claim 2, wherein said support strip is bent so as to be L-shaped and said electrical contact is attached to a shorter arm of said L-shaped

strip.

--5. The electrical device according to claim 1, wherein the free ends of said layer of carbon fiber elements are formed in a knuckle shape.

--6. The electrical device according to claim 1, wherein the free ends of said layer of carbon fiber elements are formed in an angularly pointed shape.

--7. The electrical device according to claim 1, further comprising support elements arranged on external sides of said elastomeric matrix at an end opposite said free ends and being set back from said free ends.

--8. An electrical device for transmitting electrical signals and for moveable contact with an electrically conductive track, the device comprising;

an electrical contact composed of a multi-layer structure having at least one layer of carbon fibers aligned in substantially the same direction and at least one layer of nonwoven carbon fiber mat, said one layer of carbon fibers and said layer of nonwoven carbon fiber mat being encapsulated in an elastomeric matrix; and

fastening means arranged at one end of said electrical

contact for holding together said layer of carbon fiber elements and preventing relative movement there among at a holding location, whereby free ends of said electrical contact opposite said one end are moveable relative to one another.

--9. The electrical device according to claim 8, wherein the free ends of said layer of carbon fiber elements are formed in a knuckle shape.

--10. The electrical device accordingly to claim 8, wherein the free ends of said layer of carbon fiber elements are found in an angularly pointed shape.

--11. An electrical device for transmitting electrical signals and for movable contact with electrically conductive tracks, the device comprising;

an electrical contact formed of a composite carbon fiber material having at least one layer of carbon fiber elements bonded together and being sandwiched between first and second mats of nonwoven carbon fibers with a thermoplastic resin coating on outer surfaces of said first and second mats, said electrical contact having a first arm portion, wherein the carbon fiber elements are aligned substantially in a first direction, a second arm portion spaced apart from and in a same plane as said first arm portion, wherein the carbon fiber

elements therein are aligned substantially in the first direction, and a transition portion connecting respective first ends of said first arm portion and said second arm portion, wherein the carbon fiber elements of said transition portion are substantially aligned with each other in a second direction different from said first direction of said first and second arm portions, wherein second ends of said first and second arm portions opposite said first ends are adapted to contact said electrically conductive tracks.

--12. The electrical device accordingly to claim 11, wherein said transition portion is arranged at right angles to said first and second arm portions, so that said second direction is substantially perpendicular to said first direction.

--13. The electrical device according to claim 11, wherein said transition portion is semicircular in shape and is coplanar with said first and second arm portions.

--14. An electrical device for transmitting electrical signals and for moveable contact with electrically conductive tracks, the device comprising:

an electrical contact composed of a multi-layer structure having at least one layer of carbon fibers aligned in

substantially the same direction and at least one nonwoven carbon fiber mat, said layer of carbon fibers and said nonwoven carbon fiber mat being encapsulated in an elastomeric matrix.

--15. The electrical device according to claim 14, wherein said electrical contact is formed having a body portion and first and second arm portions extending therefrom, wherein free ends of said first and second arm portions are adapted to contact the electrically conductive tracks.

--16. The electrical device according to claim 15, wherein said free ends are formed in a rake shape.

--17. The electrical device according to claim 15, wherein said layer of carbon fibers and said nonwoven carbon fiber mat are coextensive.

--18. The electrical device according to claim 15, wherein said first and second arm portions are formed of a single layer of carbon fibers.

--19. An electrical device for transmitting electrical signals and for movable contact with an electrically conductive track, the device comprising:

an electrically conductive carrier;

a contact formed of a composite carbon fiber material having a plurality of layers of carbon fiber elements arranged in overlaying relationship and affixed on said carrier and being sandwiched between first and second mats formed of nonwoven carbon fibers with a thermoplastic resin coating on outer surfaces of said first and second mats, wherein the carbon fiber elements in each layer are aligned in substantially the same direction and free ends of the carbon fiber elements are adapted to contact said electrically conductive track.

--20. The electrical device according to claim 19, wherein said carrier is substantially L-shaped and said plurality of layers of carbon fiber elements are affixed to a shorter leg of said L-shaped carrier.